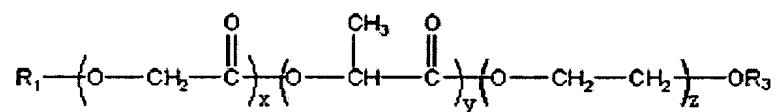


## ABSTRACT OF THE DISCLOSURE

A thermo-sensitive copolymer of following formula;



5 is disclosed; wherein  $R_1$  is hydrogen, or  $-C(=O)-R_2$ ;  $R_2$  is  $C_{7-30}$  alkyl substituted or unsubstituted with functional groups;  $R_3$  is hydrogen, or  $C_{1-6}$  alkyl; and  $x$ ,  $y$  or  $z$  individually is an integer greater than 0. The thermo-sensitive copolymers disclosed here are easy to be implanted into a human body through injection. The biodegradability is greatly improved  
10 and the cytotoxicity of the copolymers is low.